



## SEQUENCE LISTING

RECEIVED

OCT 16 2003

TECH CENTER 1600/2900

&lt;110&gt; Bruce, Wesley B.

<120> A Nitrate-Responsive Root  
Transcriptional Factor

&lt;130&gt; 1263

&lt;140&gt; US 09/970,624

&lt;141&gt; 2001-10-04

&lt;150&gt; US 60/238,292

&lt;151&gt; 2000-10-05

&lt;160&gt; 3

&lt;170&gt; FastSEQ for Windows Version 4.0

&lt;210&gt; 1

&lt;211&gt; 1280

&lt;212&gt; DNA

&lt;213&gt; Zea mays

&lt;220&gt;

&lt;221&gt; CDS

&lt;222&gt; (360)...(1082)

&lt;400&gt; 1

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catcattccc ctctcggcta gcttcttctt ctctctcctt cctctctctc ttctcttctc 120  
tcctcccttg ggaaacctgc tgcctttgag ctttcttctt cgagagctcc caccagatct 180  
cctcctcctt accttctttg gcacgttcgg cggcgcgcgc ggagaaagat agatcccgcc 240  
atcgtcgtcg tcggtccttg cttccgatcg gagggccaca accacaacct ctcgctccat 300  
agcgtgcaag cgcgagccag ggtcaagaag agagctagct agctataggc cggagatcg 359  
atg ggg agg gga aag atc gtg atc cgc agg atc gat aac tcc acg agc 407  
Met Gly Arg Gly Lys Ile Val Ile Arg Arg Ile Asp Asn Ser Thr Ser  
1 5 10 15

cgg cag gtg acc ttc tcc aag cgc cgg aac ggg atc ttc aag aag gcc 455  
Arg Gln Val Thr Phe Ser Lys Arg Arg Asn Gly Ile Phe Lys Lys Ala  
20 25 30

aag gag ctc gcc atc ctc tgc gat gcg gag gtc ggc ctc gtc atc ttc 503  
Lys Glu Leu Ala Ile Leu Cys Asp Ala Glu Val Gly Leu Val Ile Phe  
35 40 45

tcc agc acc ggc cgc ctc tac gag tac tct agc acc agc atg aaa tca 551  
Ser Ser Thr Gly Arg Leu Tyr Glu Tyr Ser Ser Thr Ser Met Lys Ser  
50 55 60

gtt ata gat cgg tac ggc aag gcc aag gaa gag cag caa gtc gtc gca 599  
Val Ile Asp Arg Tyr Gly Lys Ala Lys Glu Glu Gln Gln Val Val Ala  
65 70 75 80

aat ccc aac tcg gag ctt aag ttt tgg caa agg gag gca gca agc ttg 647

|  |      |
|--|------|
| Asn Pro Asn Ser Glu Leu Lys Phe Trp Gln Arg Glu Ala Ala Ser Leu    |      |
| 85 90 95   |      |
| aga caa caa ctg cac aac ttg caa gaa aat tat cgg cag ttg acg gga    | 695  |
| Arg Gln Gln Leu His Asn Leu Gln Glu Asn Tyr Arg Gln Leu Thr Gly    |      |
| 100 105 110  |      |
| gat gat ctt tct ggg ctg aat gtc aaa gaa ctg cag tcc ctg gag aat    | 743  |
| Asp Asp Leu Ser Gly Leu Asn Val Lys Glu Leu Gln Ser Leu Glu Asn    |      |
| 115 120 125  |      |
| caa ttg gaa aca agc ctg cgt ggt gtc cgc gca aag aag gac cat ctc    | 791  |
| Gln Leu Glu Thr Ser Leu Arg Gly Val Arg Ala Lys Lys Asp His Leu    |      |
| 130 135 140  |      |
| ttg ata gat gag att cac gat ttg aat cga aag gca agt tta ttt cac    | 839  |
| Leu Ile Asp Glu Ile His Asp Leu Asn Arg Lys Ala Ser Leu Phe His    |      |
| 145 150 155 160  |      |
| caa gaa aat aca gac ttg tac aat aag atc aac ctg att cgc caa gaa    | 887  |
| Gln Glu Asn Thr Asp Leu Tyr Asn Lys Ile Asn Leu Ile Arg Gln Glu    |      |
| 165 170 175  |      |
| aat gat gag tta cat aaa aag ata tat gag act gaa gga cca agt gga    | 935  |
| Asn Asp Glu Leu His Lys Lys Ile Tyr Glu Thr Glu Gly Pro Ser Gly    |      |
| 180 185 190  |      |
| gtt aat cgg gag tca ccg act cca ttc aac ttt gca gta gta gaa acc    | 983  |
| Val Asn Arg Glu Ser Pro Thr Pro Phe Asn Phe Ala Val Val Glu Thr    |      |
| 195 200 205  |      |
| aga gat gtt cct gtg caa ctt gaa ctc agc aca ctg cca cag caa aat    | 1031 |
| Arg Asp Val Pro Val Gln Leu Glu Leu Ser Thr Leu Pro Gln Gln Asn    |      |
| 210 215 220  |      |
| aac att gag cca tct act gct cct aag cta gga ttg caa tta att cca    | 1079 |
| Asn Ile Glu Pro Ser Thr Ala Pro Lys Leu Gly Leu Gln Leu Ile Pro    |      |
| 225 230 235 240  |      |
| tga agaagagtaa aactgccgtc ttatgatgct gaaggaaact atttattgtg         | 1132 |
| *  |      |
| aagagatgat actcagagaa agacatatatt gtggcagggg gatttgagat atgaacttat | 1192 |
| aaatgtaatg caaataattt tcagaccgga atgggggtcgt ggaattcaga ggatgattgc | 1252 |
| tttctaaaaa aaaaaaaaaa aaaaaaaa                                     | 1280 |

<210> 2  
 <211> 240  
 <212> PRT  
 <213> Zea mays

<400> 2  
 Met Gly Arg Gly Lys Ile Val Ile Arg Arg Ile Asp Asn Ser Thr Ser  
 1 5 10 15  
 Arg Gln Val Thr Phe Ser Lys Arg Arg Asn Gly Ile Phe Lys Lys Ala  
 20 25 30

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Glu | Leu | Ala | Ile | Leu | Cys | Asp | Ala | Glu | Val | Gly | Leu | Val | Ile | Phe |
|     | 35  |     |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |
| Ser | Ser | Thr | Gly | Arg | Leu | Tyr | Glu | Tyr | Ser | Ser | Thr | Ser | Met | Lys | Ser |
|     | 50  |     |     |     |     | 55  |     |     |     |     | 60  |     |     |     |     |
| Val | Ile | Asp | Arg | Tyr | Gly | Lys | Ala | Lys | Glu | Glu | Gln | Gln | Val | Val | Ala |
| 65  |     |     |     |     | 70  |     |     |     | 75  |     |     |     |     |     | 80  |
| Asn | Pro | Asn | Ser | Glu | Leu | Lys | Phe | Trp | Gln | Arg | Glu | Ala | Ala | Ser | Leu |
|     |     |     | 85  |     |     |     |     | 90  |     |     |     |     |     | 95  |     |
| Arg | Gln | Gln | Leu | His | Asn | Leu | Gln | Glu | Asn | Tyr | Arg | Gln | Leu | Thr | Gly |
|     |     |     | 100 |     |     |     |     | 105 |     |     |     |     | 110 |     |     |
| Asp | Asp | Leu | Ser | Gly | Leu | Asn | Val | Lys | Glu | Leu | Gln | Ser | Leu | Glu | Asn |
|     | 115 |     |     |     |     | 120 |     |     |     |     | 125 |     |     |     |     |
| Gln | Leu | Glu | Thr | Ser | Leu | Arg | Gly | Val | Arg | Ala | Lys | Lys | Asp | His | Leu |
|     | 130 |     |     |     |     | 135 |     |     |     |     | 140 |     |     |     |     |
| Leu | Ile | Asp | Glu | Ile | His | Asp | Leu | Asn | Arg | Lys | Ala | Ser | Leu | Phe | His |
| 145 |     |     |     |     | 150 |     |     |     |     | 155 |     |     |     |     | 160 |
| Gln | Glu | Asn | Thr | Asp | Leu | Tyr | Asn | Lys | Ile | Asn | Leu | Ile | Arg | Gln | Glu |
|     |     |     | 165 |     |     |     |     | 170 |     |     |     |     |     | 175 |     |
| Asn | Asp | Glu | Leu | His | Lys | Lys | Ile | Tyr | Glu | Thr | Glu | Gly | Pro | Ser | Gly |
|     |     | 180 |     |     |     |     |     | 185 |     |     |     |     | 190 |     |     |
| Val | Asn | Arg | Glu | Ser | Pro | Thr | Pro | Phe | Asn | Phe | Ala | Val | Val | Glu | Thr |
|     | 195 |     |     |     |     |     | 200 |     |     |     |     | 205 |     |     |     |
| Arg | Asp | Val | Pro | Val | Gln | Leu | Glu | Leu | Ser | Thr | Leu | Pro | Gln | Gln | Asn |
|     | 210 |     |     |     | 215 |     |     |     |     | 220 |     |     |     |     |     |
| Asn | Ile | Glu | Pro | Ser | Thr | Ala | Pro | Lys | Leu | Gly | Leu | Gln | Leu | Ile | Pro |
| 225 |     |     |     |     | 230 |     |     |     |     | 235 |     |     |     |     | 240 |

<210> 3

<211> 36

<212> DNA

<213> Artificial Sequence

<220>

<223> Oligonucleotide

<400> 3

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